

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/945,574DATE: 09/02/98  
TIME: 15:32:28

INPUT SET: S28291.raw

This Raw Listing contains the General  
Information Section and up to the first 5 pages.

## SEQUENCE LISTING

**ENTERED**

1  
2  
3 (1) General Information  
4  
5 (i) APPLICANTS: Lenting, Hermanus Bernardus Maria  
6 Van Beethoven, Rudolf Franciscus Wilhelmus Cornelis  
7 Maurer, Karl-Heinz  
8 Kottwitz, Beatrix  
9 Weiss, Albrecht  
10 Van Solingen, Pieter  
11  
12 (ii) TITLE OF INVENTION: Detergents Comprising Cellulases  
13  
14 (iii) NUMBER OF SEQUENCES: 2  
15  
16 (iv) CORRESPONDENCE ADDRESS:  
17 (A) ADDRESSEE: Henkel Corporation  
18 (B) STREET: 140 Germantown Pike, Suite 150  
19 (C) CITY: Plymouth Meeting  
20 (D) STATE: Pennsylvania  
21 (E) COUNTRY: U.S.A.  
22 (F) ZIP: 19462  
23  
24 (v) COMPUTER READABLE FORM:  
25 (A) MEDIUM TYPE: 3.5" diskette  
26 (B) COMPUTER: IBM PC compatible  
27 (C) OPERATING SYSTEM: MS-DOS  
28 (D) SOFTWARE: MS Word 6.0  
29  
30 (vi) CURRENT APPLICATION DATA:  
31 (A) APPLICATION NUMBER: 08/945,574  
32 (B) FILING DATE: unavailable  
33 (C) CLASSIFICATION: C12N 9/42  
34 C11D 3/386  
35  
36 (vii) PRIOR APPLICATION DATA  
37 (A) APPLICATION NUMBER: PCT/EP96/01755  
38 (B) FILING DATE: 26 Apr. 1996  
39  
40 (A) APPLICATION NUMBER: EP 95201115.3  
41 (B) FILING DATE: 28 Apr. 1995  
42  
43 (A) APPLICATION NUMBER: U.S. 614,115  
44 (B) FILING DATE: 12 Mar. 1996  
45  
46

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JAN 07 1999  
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PATENT APPLICATION US/08/945,574DATE: 09/02/98  
TIME: 15:32:29

INPUT SET: S28291.raw

47

48

49 (viii) ATTORNEY/AGENT INFORMATION:

50 (A) NAME: Murphy, Glenn E. J.

51 (B) REGISTRATION NUMBER: 33,539

52 (C) REFERENCE/DOCKET NUMBER: H 1920 PCT/US

53

54 (ix) TELECOMMUNICATION INFORMATION:

55 (A) TELEPHONE: (610) 832-2228

56 (B) TELEFAX: (610) 941-6067

57

58

59

60 (2) INFORMATION FOR SEQ ID NO:1:

61

62 (i) SEQUENCE CHARACTERISTICS:

63 (A) LENGTH: 467 amino acids

64 (B) TYPE: amino acid

65 (C) STRANDEDNESS: single

66 (C) TOPOLOGY: linear

67

68 (ii) MOLECULE TYPE: protein

69

70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

71

72

73 Met Lys Lys Ile Thr Thr Ile Phe Ala Val Leu Leu Met Thr Leu Ala

74 -26 -25 -20 -15

75

76 Leu Phe Ser Ile Gly Asn Thr Thr Ala Ala Asp Asp Tyr Ser Val Val

77 -10 -5 1 5

78

79 Glu Glu His Gly Gln Leu Ser Ile Ser Asn Gly Glu Leu Val Asn Glu

80 10 15 20

81

82 Arg Gly Glu Gln Val Gln Leu Lys Gly Met Ser Ser His Gly Leu Gln

83 25 30 35

84

85 Trp Tyr Gly Gln Phe Val Asn Tyr Glu Ser Met Lys Trp Leu Arg Asp

86 40 45 50

87

88 Asp Trp Gly Ile Thr Val Phe Arg Ala Ala Met Tyr Thr Ser Ser Gly

89 55 60 65 70

90

91 Gly Tyr Ile Asp Asp Pro Ser Val Lys Glu Lys Val Lys Glu Thr Val

92 75 80 85

93

94 Glu Ala Ala Ile Asp Leu Gly Ile Tyr Val Ile Ile Asp Trp His Ile

95 90 95 100

96

97 Leu Ser Asp Asn Asp Pro Asn Ile Tyr Lys Glu Glu Ala Lys Asp Phe

98 105 110 115

99

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/945,574

DATE: 09/02/98  
TIME: 15:32:30

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100	Phe	Asp	Glu	Met	Ser	Glu	Leu	Tyr	Gly	Asp	Tyr	Pro	Asn	Val	Ile	Tyr	
101		120					125					130					
102																	
103	Glu	Ile	Ala	Asn	Glu	Pro	Asn	Gly	Ser	Asp	Val	Thr	Trp	Asp	Asn	Gln	
104	135					140					145					150	
105																	
106	Ile	Lys	Pro	Tyr	Ala	Glu	Glu	Val	Ile	Pro	Val	Ile	Arg	Asp	Asn	Asp	
107					155					160					165		
108																	
109	Pro	Asn	Asn	Ile	Val	Ile	Val	Gly	Thr	Gly	Thr	Trp	Ser	Gln	Asp	Val	
110				170					175					180			
111																	
112	His	His	Ala	Ala	Asp	Asn	Gln	Leu	Ala	Asp	Pro	Asn	Val	Met	Tyr	Ala	
113			185					190					195				
114																	
115	Phe	His	Phe	Tyr	Ala	Gly	Thr	His	Gly	Gln	Asn	Leu	Arg	Asp	Gln	Val	
116		200					205					210					
117																	
118	Asp	Tyr	Ala	Leu	Asp	Gln	Gly	Ala	Ala	Ile	Phe	Val	Ser	Glu	Trp	Gly	
119	215					220					225					230	
120																	
121	Thr	Ser	Ala	Ala	Thr	Gly	Asp	Gly	Gly	Val	Phe	Leu	Asp	Glu	Ala	Gln	
122					235					240					245		
123																	
124	Val	Trp	Ile	Asp	Phe	Met	Asp	Glu	Arg	Asn	Leu	Ser	Trp	Ala	Asn	Trp	
125				250					255					260			
126																	
127	Ser	Leu	Thr	His	Lys	Asp	Glu	Ser	Ser	Ala	Ala	Leu	Met	Pro	Gly	Ala	
128			265					270					275				
129																	
130	Asn	Pro	Thr	Gly	Gly	Trp	Thr	Glu	Ala	Glu	Leu	Ser	Pro	Ser	Gly	Thr	
131		280					285					290					
132																	
133	Phe	Val	Arg	Glu	Lys	Ile	Arg	Glu	Ser	Ala	Ser	Ile	Pro	Pro	Ser	Asp	
134	295					300					305					310	
135																	
136	Pro	Thr	Pro	Pro	Ser	Asp	Pro	Gly	Glu	Pro	Asp	Pro	Gly	Glu	Pro	Asp	
137					315					320				325			
138																	
139	Pro	Thr	Pro	Pro	Ser	Asp	Pro	Gly	Glu	Tyr	Pro	Ala	Trp	Asp	Ser	Asn	
140				330					335					340			
141																	
142	Gln	Ile	Tyr	Thr	Asn	Glu	Ile	Val	Tyr	His	Asn	Gly	Gln	Leu	Trp	Gln	
143			345					350					355				
144																	
145	Ala	Lys	Trp	Trp	Thr	Gln	Asn	Gln	Glu	Pro	Gly	Asp	Pro	Tyr	Gly	Pro	
146		360					365					370					
147																	
148	Trp	Glu	Pro	Leu	Lys	Ser	Asp	Pro	Asp	Ser	Gly	Glu	Pro	Asp	Pro	Thr	
149	375					380					385					390	
150																	
151	Pro	Pro	Ser	Asp	Pro	Gly	Glu	Tyr	Pro	Ala	Trp	Asp	Ser	Asn	Gln	Ile	
152					395					400					405		

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153
154 Tyr Thr Asn Glu Ile Val Tyr His Asn Gly Gln Leu Trp Gln Ala Lys
155           410           415           420
156
157 Trp Trp Thr Gln Asn Gln Glu Pro Gly Asp Pro Tyr Gly Pro Trp Glu
158           425           430           435
159
160 Pro Leu Asn
161       440
162
163
164
165 (2) INFORMATION FOR SEQ ID NO:2:
166
167 (i) SEQUENCE CHARACTERISTICS:
168 (A) LENGTH: 574 amino acids
169 (B) TYPE: amino acid
170 (C) STRANDEDNESS: single
171 (D) TOPOLOGY: linear
172
173 (ii) MOLECULE TYPE: protein
174
175 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
176
177
178 Met Lys Trp Met Lys Ser Met Val Trp Leu Ala Val Val Leu Val Val
179   1           5           10           15
180
181 Ser Phe Val Ala Pro Ala Val Ser Ser Ala Asn Glu Asp Val Lys Thr
182           20           25           30
183
184 Leu Asp Ile Gln Ser Tyr Val Arg Asp Met Gln Pro Gly Trp Asn Leu
185           35           40           45
186 Gly Asn Thr Phe Asp Ala Val Gly Gln Asp Glu Thr Ala Trp Gly Asn
187           50           55           60
188
189 Pro Arg Val Thr Arg Glu Leu Ile Glu Arg Ile Ala Asp Glu Gly Tyr
190   65           70           75           80
191
192 Lys Ser Ile Arg Ile Pro Val Thr Trp Glu Asn Arg Ile Gly Gly Ala
193           85           90           95
194
195 Pro Asp Tyr Pro Ile Asp Pro Gln Phe Leu Asn Arg Val Asp Glu Val
196           100          105          110
197
198 Val Gln Trp Ala Leu Glu Glu Asp Leu Tyr Val Met Ile Asn Leu His
199           115          120          125
200
201 His Asp Ser Trp Leu Trp Ile Tyr Glu Met Glu His Asn Tyr Asn Gly
202           130          135          140
203
204 Val Met Ala Lys Tyr Arg Ser Leu Trp Glu Gln Leu Ser Asn His Phe
205   145          150          155          160

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# RAW SEQUENCE LISTING PATENT APPLICATION US/08/945,574

DATE: 09/02/98  
TIME: 15:32:31

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206
207   Lys Asp Tyr Pro Thr Lys Leu Met Phe Glu Ser Val Asn Glu Pro Lys
208                               165                      170          175
209
210   Phe Ser Gln Asn Trp Gly Glu Ile Arg Glu Asn His His Ala Leu Leu
211                               180                      185          190
212
213   Asp Asp Leu Asn Thr Val Phe Phe Glu Ile Val Arg Gln Ser Gly Gly
214                               195                      200          205
215
216   Gln Asn Asp Ile Arg Pro Leu Val Leu Pro Thr Met Glu Thr Ala Thr
217                               210                      215          220
218
219   Ser Gln Pro Leu Leu Asn Asn Leu Tyr Gln Thr Ile Asp Lys Leu Asp
220   225                      230                      235          240
221
222   Asp Pro Asn Leu Ile Ala Thr Val His Tyr Tyr Gly Phe Trp Pro Phe
223                               245                      250          255
224
225   Ser Val Asn Ile Ala Gly Tyr Thr Arg Phe Glu Glu Asp Ser Lys Arg
226                               260                      265          270
227
228   Glu Ile Ile Glu Thr Phe Asp Arg Val His His Thr Phe Val Ala Arg
229                               275                      280          285
230
231   Gly Ile Pro Val Val Leu Gly Glu Phe Gly Leu Leu Gly Phe Asp Lys
232                               290                      295          300
233
234   His Thr Gly Val Ile Gln Gln Gly Glu Lys Leu Lys Phe Phe Glu Tyr
235   305                      310                      315          320
236
237   Leu Ile His His Leu Asn Glu Arg Asp Ile Thr His Met Leu Trp Asp
238                               325                      330          335
239
240   Asn Gly Gln His Phe Asn Arg His Thr Tyr Glu Trp Tyr Asp Glu Glu
241                               340                      345          350
242
243   Leu Phe Asp Met Leu Arg Ala Ser Trp Gly Gly Arg Ser Ser Val Ala
244                               355                      360          365
245
246   Glu Ser Asn Phe Ile Tyr Leu Lys Gln Gly Asp Arg Ile Ala Asp Ala
247                               370                      375          380
248
249   Thr Val Thr Leu Gln Leu His Gly Asn Glu Leu Thr Gly Leu Gln Ala
250   385                      390                      395          400
251
252   Asn Gly Gln Arg Leu Thr Pro Gly Gln Asp Tyr Glu Leu Asn Gly Glu
253                               405                      410          415
254
255   Arg Leu Thr Val Lys Ala His Val Leu Ser Ala Ile Ala Gly Ser Gly
256                               420                      425          430
257
258   Thr Leu Gly Thr Asn Gly Met Val Thr Ala Glu Phe Asn Arg Gly Ala

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PAGE: 1

**SEQUENCE VERIFICATION REPORT**  
**PATENT APPLICATION US/08/945,574**

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Line	Error	Original Text
33	Wrong Classification	(C) CLASSIFICATION: C12N 9/42